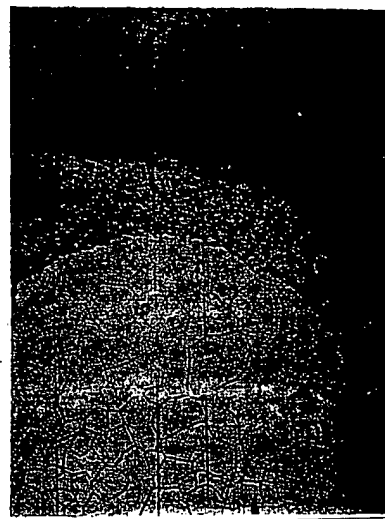
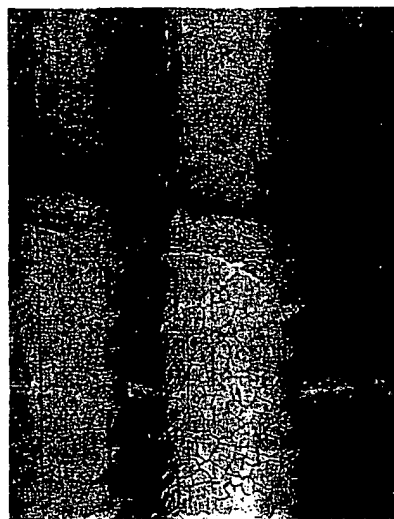
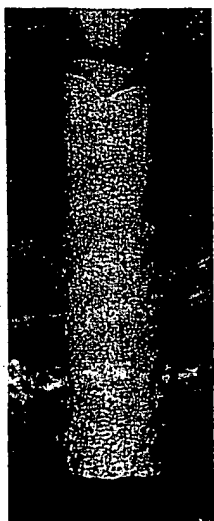


002221" 63884463

F i g . 1

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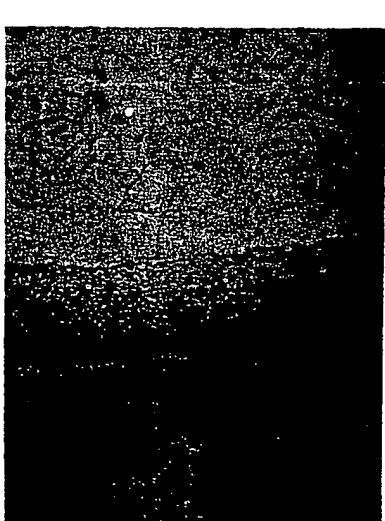
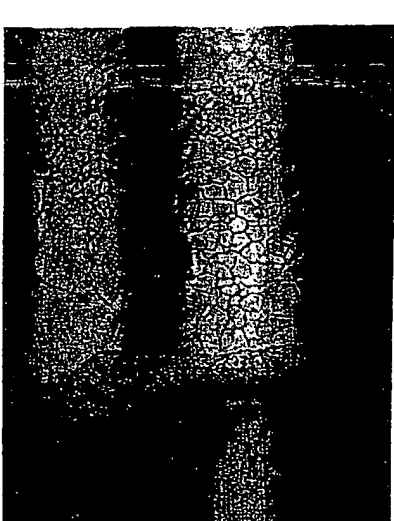
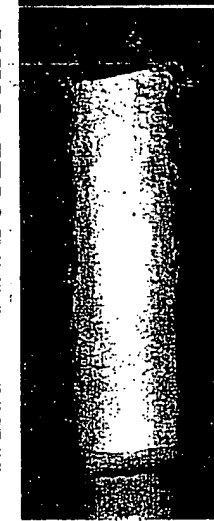
DOWNSTREAM
HEAT - AFFECTED PART



WELDED PART



UPSTREAM
HEAT - AFFECTED PART



× 50

× 100

× 200

Fig. 2

2/13

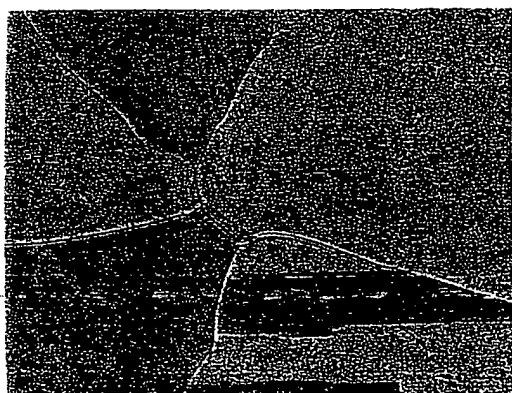
DOWNSTREAM



5mm



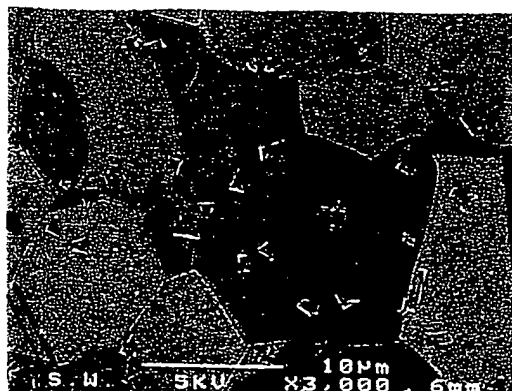
3mm



3mm



WELDED PART



5mm

UPSTREAM

[BACK SHIELD GAS :
100 % Ar]

0074883-13700

PARTICLE MEASUREMENTS AT WELDED PARTS

AT WELDING CONDITIONS (30rpm \times 1rev. BEAD WIDTH 1mm) 9 WELDED SPOTS

FLOW RATE: 0.1cf/min (U - N₂), PARTICLE MEASUREMENT: 0.1 μ m OR LARGER

BASE METAL	STAINLESS STEEL TUBU SUBJECTED TO FLUGRIED PASSIVATION TREATMENT					REGULAR STAINLESS STEEL
	NO WELDING	CONVENTIONAL WELDING METHOD	WELDING AFTER FILM REMOVAL WITH HOT WATER (80°C)	WELDING AFTER FILM REMOVAL WITH 0.5%HF/10%H ₂ O ₂	WELDING METHOD WITH 5% ADDED H ₂	CONVENTIONAL WELDING METHOD
NO HAMMERING (10min)	0	0	0	0	0	0
WITH HAMMERING (10min)	0	60	0	0	0	0

F i g . 4

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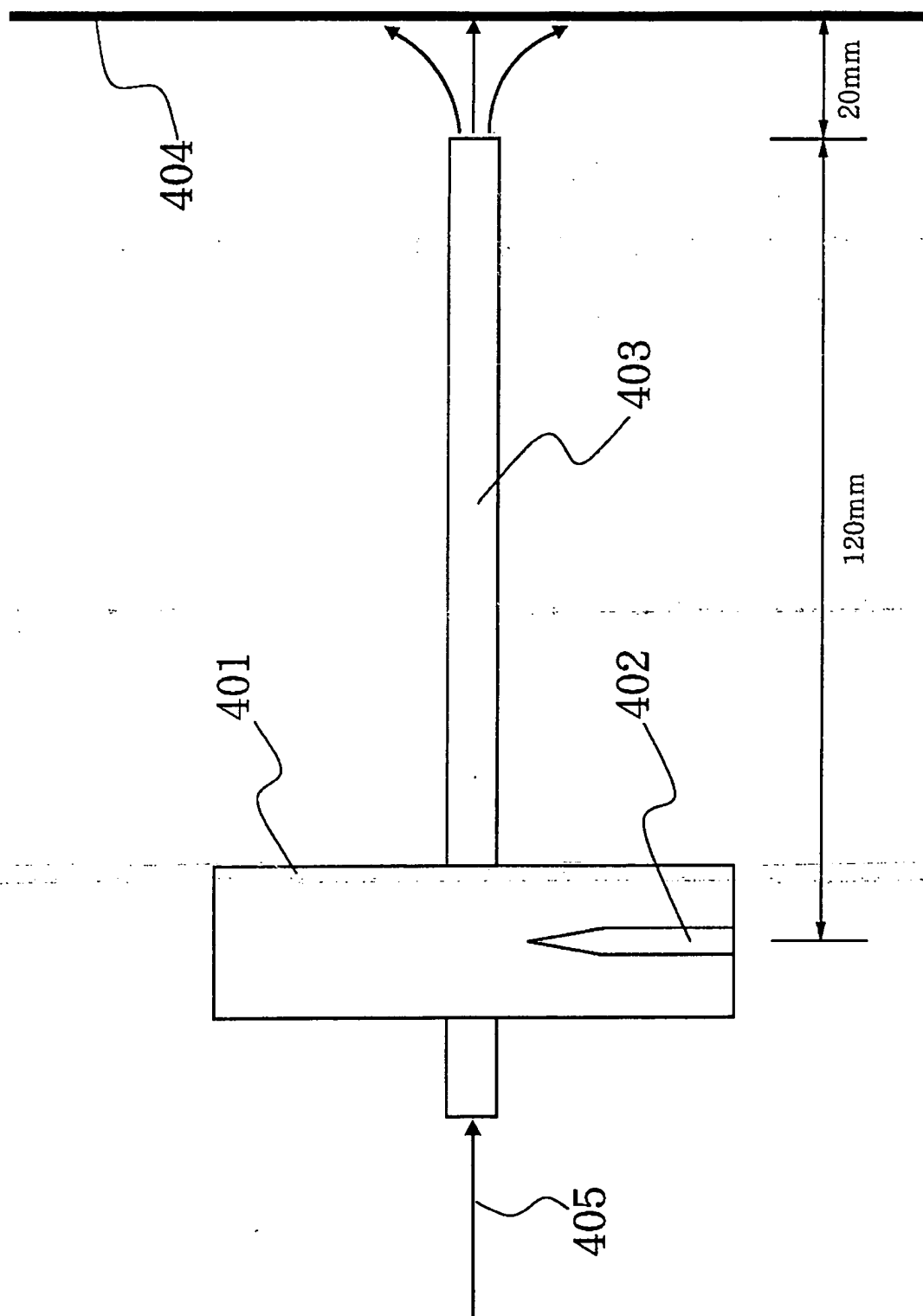


Fig. 5

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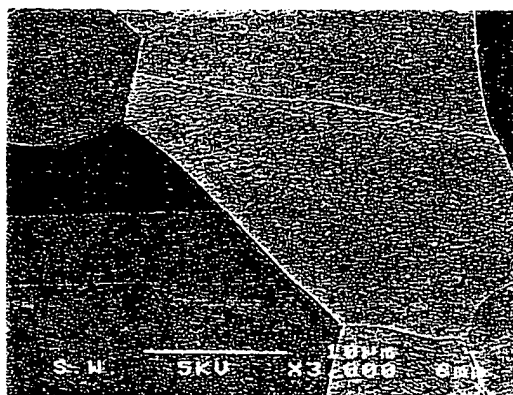
DOWNSTREAM



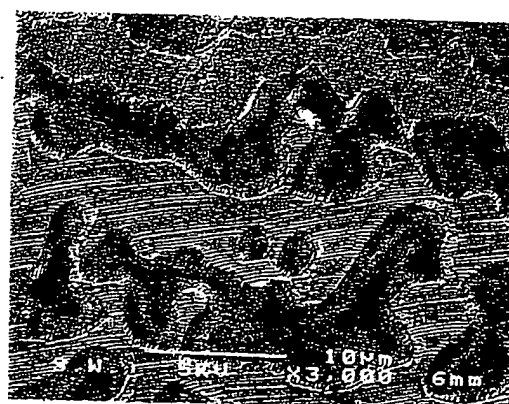
5mm



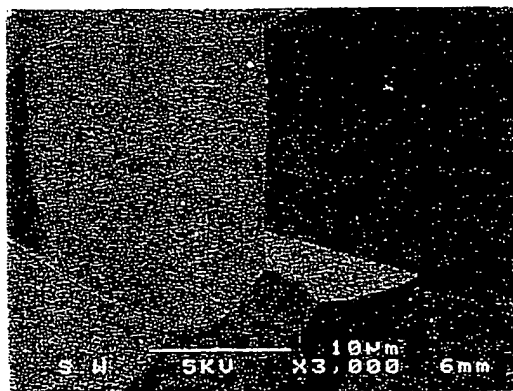
3mm



3mm



WELDED PART



5mm

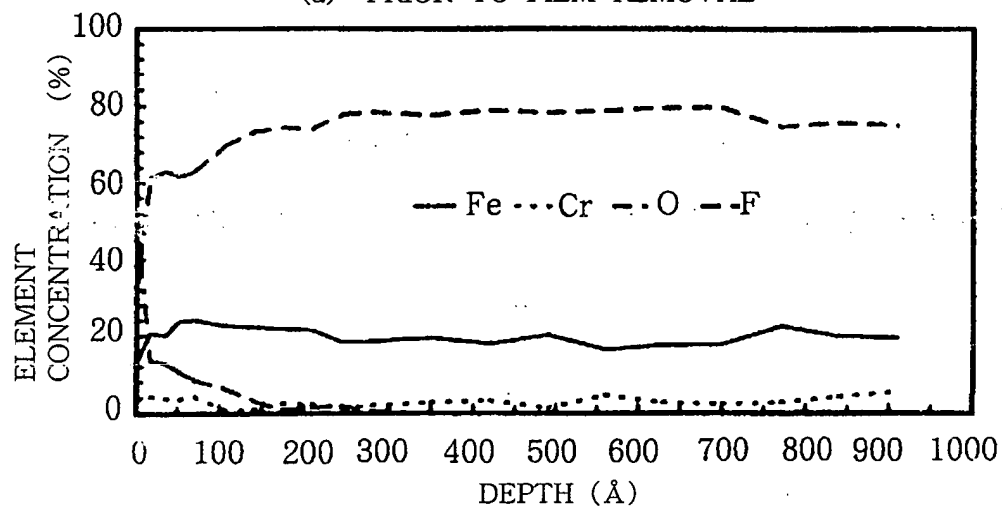
UPSTREAM

[BACK SHIELD GAS :
5 % H₂/Ar]

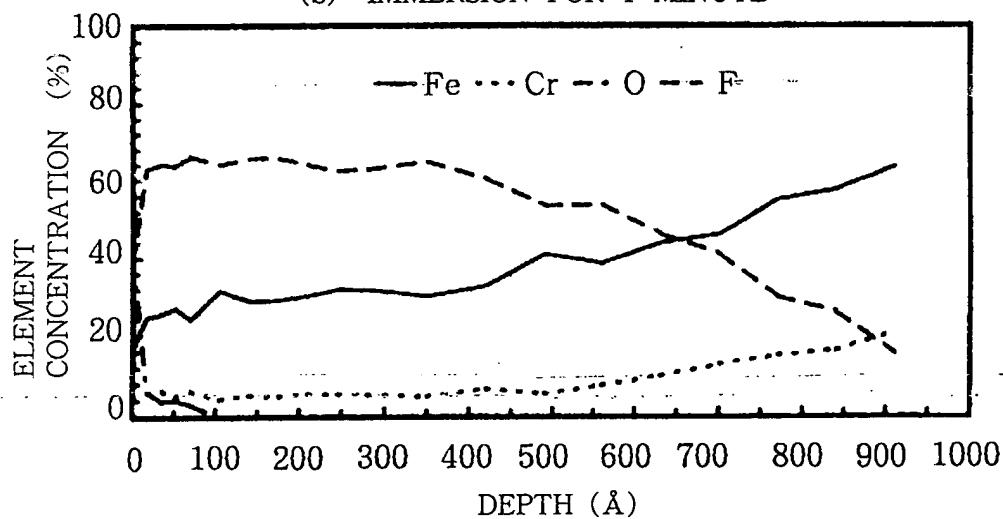
00740803-4270

REMOVAL OF FLUORIDE PASSIVATED
FILM USING HOT WATER (80°C)

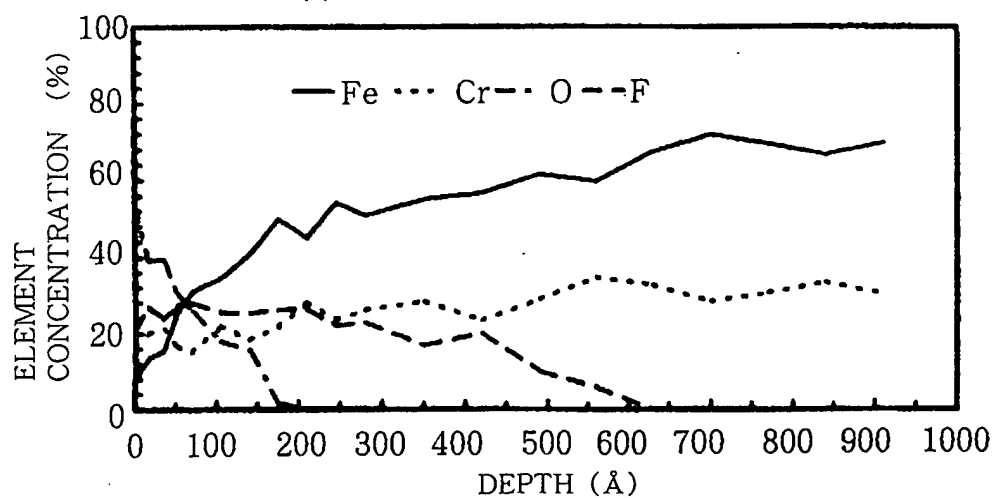
(a) PRIOR TO FILM REMOVAL



(b) IMMERSION FOR 1 MINUTE

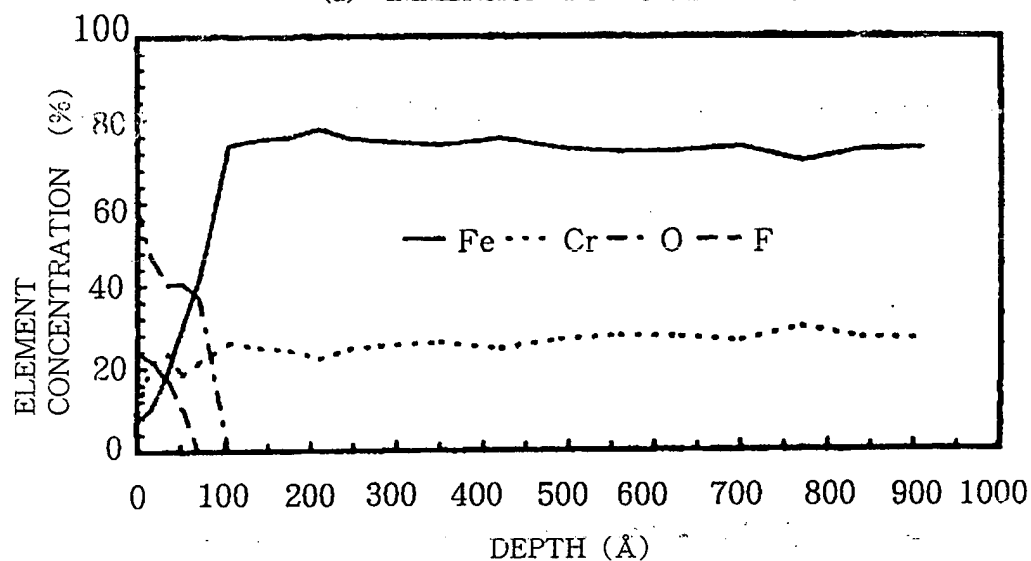


(c) AFTER IMMERSION FOR 3 MINUTES

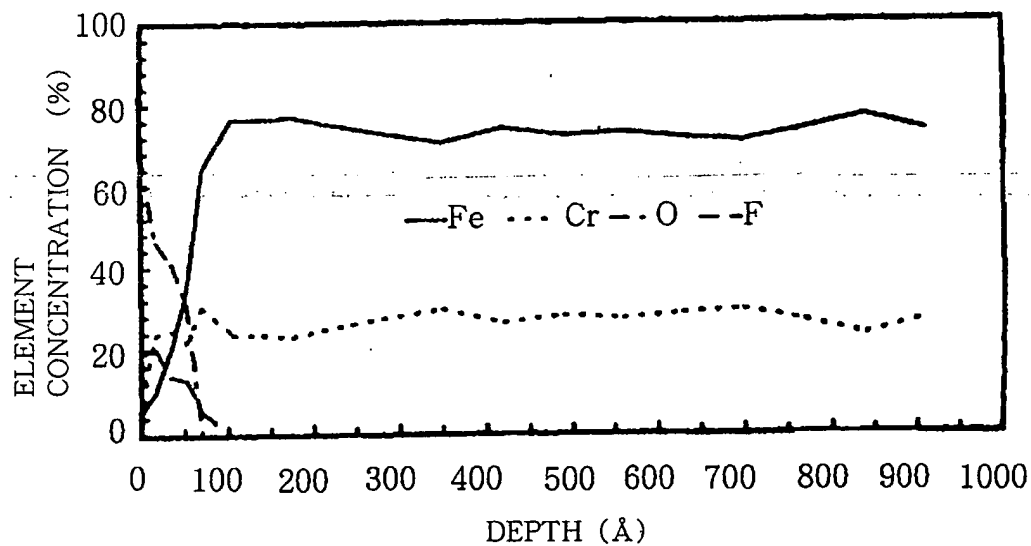


REMOVAL OF FLUORIDE PASSIVATED
FILM USING HOT WATER (80°C)

(a) IMMERSION FOR 5 MINUTES

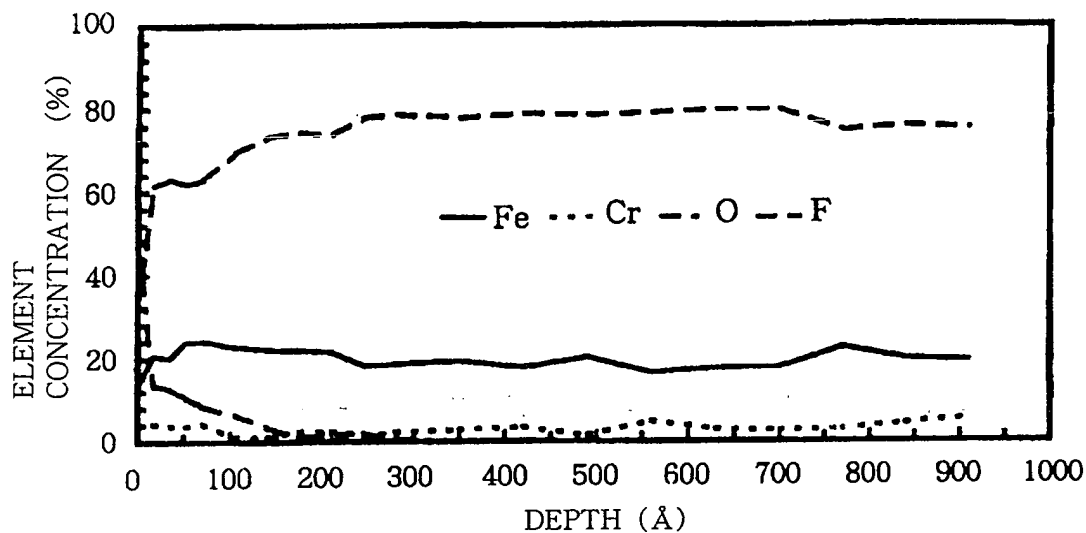


(b) IMMERSION FOR 10 MINUTES

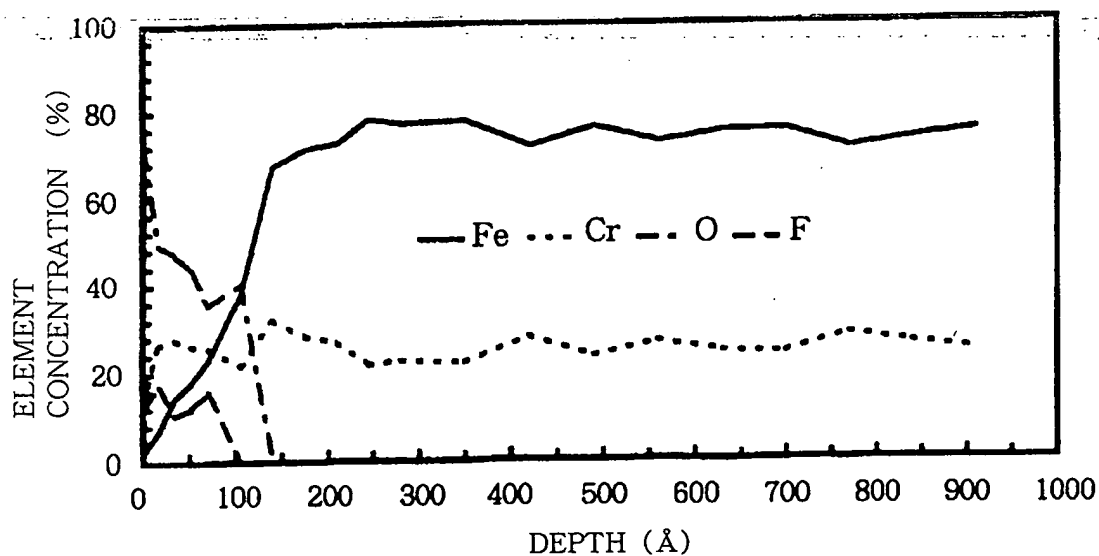


REMOVAL OF PASSIVATED FILM USING A MIXED
AQUEOUS SOLUTION OF 0.5% HYDROFLUORIC
ACID AND 10% HYDROGEN PEROXIDE

(b) PRIOR TO FILM REMOVAL



(b) IMMERSION FOR 10 MINUTES



DOWNSTREAM
HEAT - AFFECTED PART

(IMMERION FOR 10 MINUTES IN
A MIXED AQUEOUS SOLUTION
OF 0.5 % HYDROFLUORIC ACID
AND 10 % HYDRGEN PEROXIDE)

UPSTREAM HEAT - AFFECTED PART

WELDED PART

50
x

 $\times 100$

× 200

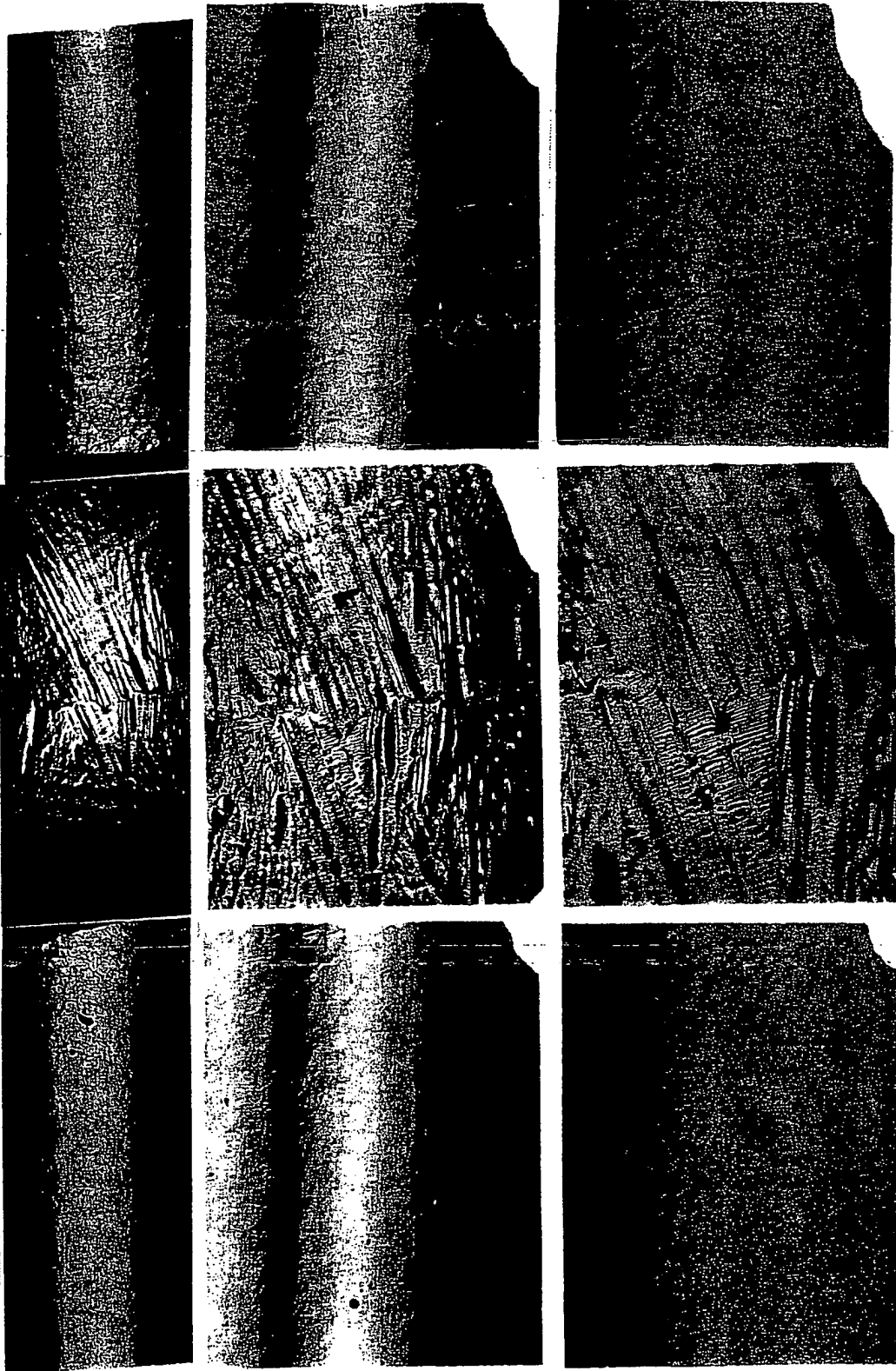
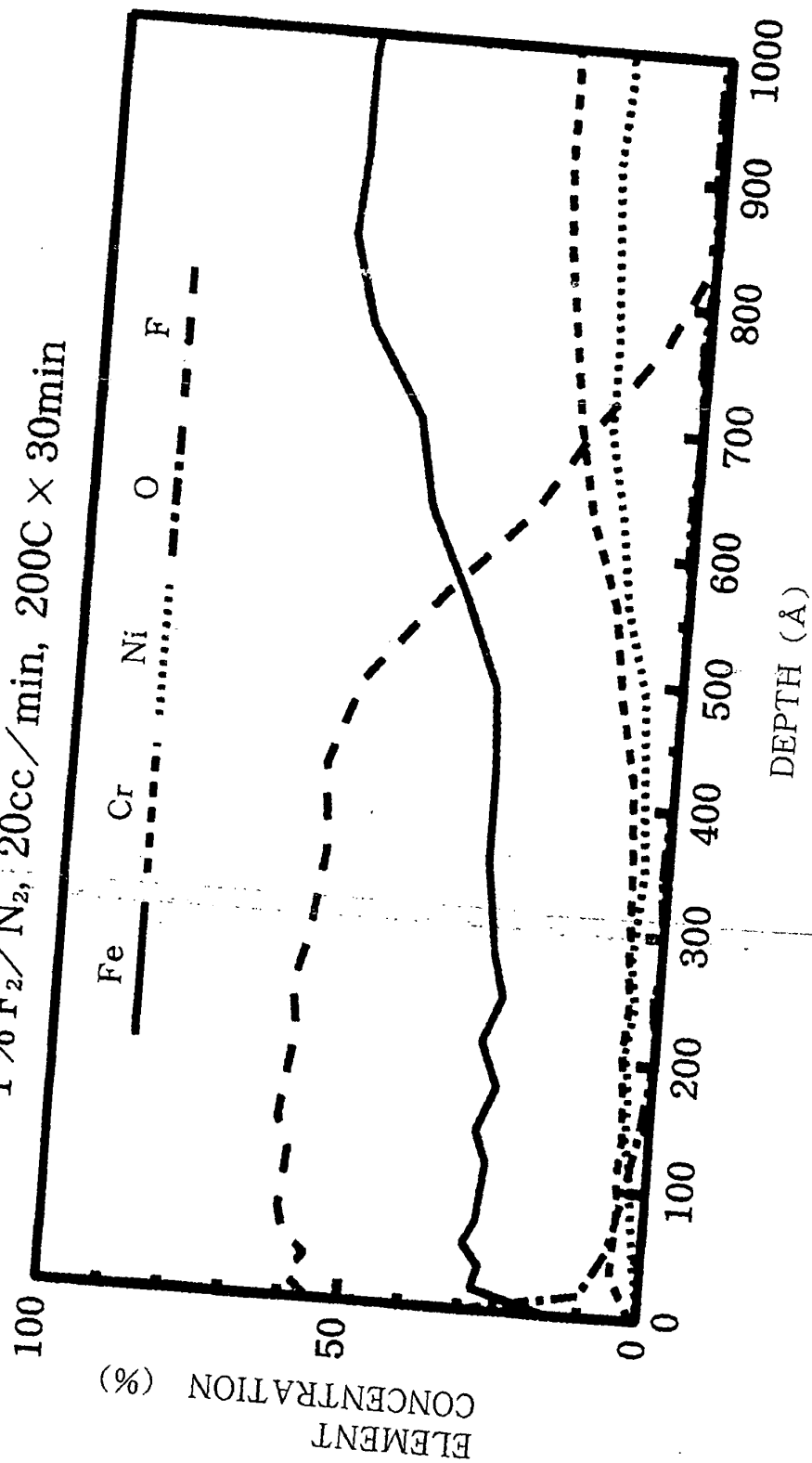
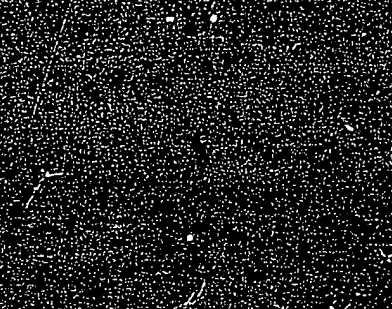


Fig. 11

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FLUORIDE PASSIVATION RETREATMENT
OF THE WELDED PART
1% F₂/N₂, 20cc/min, 200C × 30min





KN103 5kV 10µm X3,000 7mm

KN103 5KV X3,000 10 μm 7 mm

KN103 5KV X37,000 10um 2mm

KN103 5KV 10μm 7mm

Micrograph showing a textured surface, likely a material sample. A scale bar at the bottom indicates a length of 10 μm. The image is labeled with 'KN103' and '5KU' on the left, and 'X3,000' and '2mm' on the right.

UPSTREAM

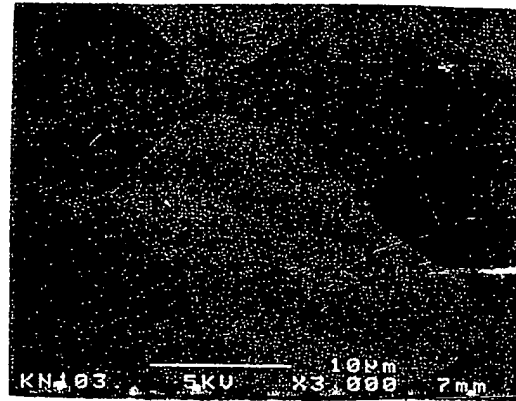
[BACK SHIELD GAS :
0.1 % H₂/Ar]

1. The first step is to identify the key components of the system. This involves understanding the hardware, software, and data involved.

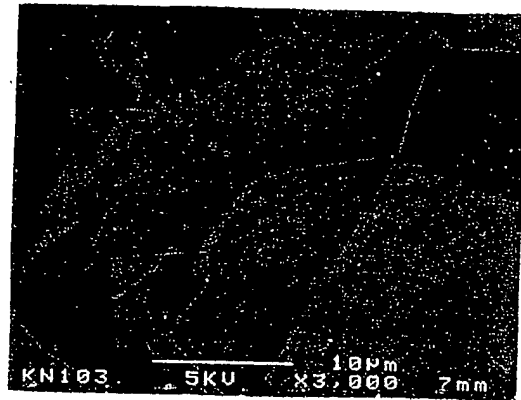
Fig. 13

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DOWNSTREAM



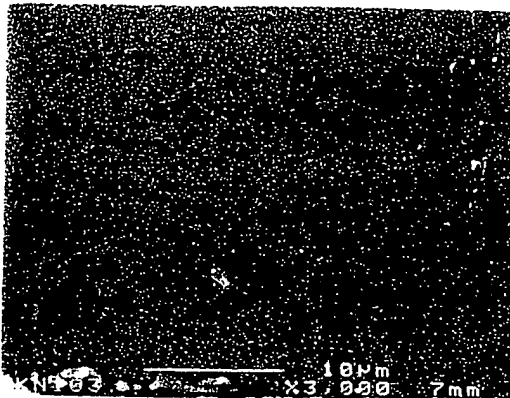
5mm



3mm

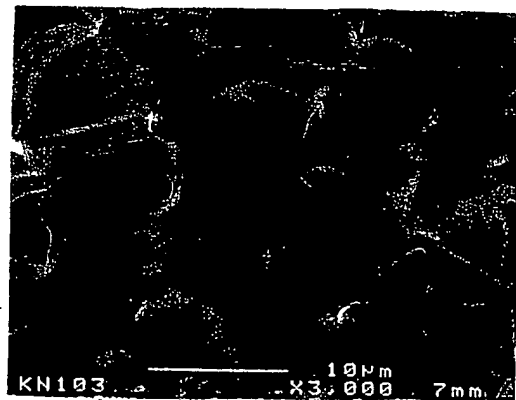


3mm



5mm

UPSTREAM



WELDED PART

[BACK SHIELD GAS :
0.5 % H₂/Ar]

004337 0000460